EATON | Powerware

Powerware® 9330

Product Focus

Model 20 and Model 40

Product Snapshot

Power Rating:	10, 15, 20, 25, 30, 35, and 40 kVA
Voltage:	208/208, 220/220 220/208 480/208, 480/480, 600/208 VAC
Frequency:	50/60 Hz

Features

- **Maximum Availability** - with true double-conversion online design, the proven technology used to safeguard the most mission-critical applications in the world. It's unusual to find line-interactive, pseudo-online or any other kind of UPS, other than double-conversion online, supporting 24 x 365 data centers, facilities, ISPs and major telecommunications installations.
- **Maximum Reliability** - Patented Powerware Hot Sync™ technology achieves wireless paralleling for redundancy and capacity (up to four modules) with no system-level single point-of-failure. The preferred paralleling technology installed around the world with such major customers as E*Trade, NASA, and Citibank. Powerware Hot Sync is available in the 10-120 kVA range with the Powerware 9330.
- **Maximum Performance** - the Powerware 9330 delivers the highest performance by using digital signal processing, true pulse-width modulation and maximum IGBT responsiveness. This provides easy setup, drift-free operation and a pristine output.
- **Comprehensive Services** – Eaton service professionals provide around-the-clock monitoring, remote diagnostics, and on-site maintenance programs. More than just a material warranty, this is the most comprehensive service coverage available in the industry.

Designed specifically to meet the high-availability needs of critical 24 x 7 applications for small to medium-size businesses, the Powerware 9330 delivers enhanced system reliability and the highest efficiency ratings of any online UPS in the 10 – 40 kVA range. The 9330 also contains high-end features and benefits that only existed in larger capacity UPS, until now.

IT managers must implement the most efficient solutions possible, without compromising the business need for availability. Through its well thought-out design, the Powerware 9330 helps IT managers meet both the high availability and operational efficiency requirements they face by eliminating a primary cause of downtime: power problems. The advanced features of the Powerware 9330 include:

- **Digital Signal Processing and Pulse-Width Modulation**
  True pulse-width modulation is achieved through the use of digital signal processing, which enables the IGBTs to work at their highest capacity, increasing system reliability and ensuring perfect power on the output.
- **Built-in Control Area Network (CAN)**
  An integral internal and external Control Area Network (CAN) is incorporated into the Powerware 9330 that assists in seamlessly integrating peripherals and options, controllable from the front panel. It also reduces the internal

wiring connections required, therefore increasing overall system reliability.

- **Superior Cooling Design** The superior cooling design of the Powerware 9330 draws from Eaton's 40 years of extensive industry and product development experience. This design, which features redundant fans, ensures that more thermally sensitive areas are cooled first.

- **Comprehensive Communications & User Interface** A large display, mimic and control panel is ergonomically situated for operator interface with the unit. The soft keypad helps guide the operator through all menus and setups. Designed and engineered to provide full-featured monitoring and extensive alarm history, a dedicated microprocessor allows for additional communication options like Internet accessibility, Ethernet, SNMP, network links and modems.

- **Internal Battery** The Powerware 9330 comes with internal batteries that provide up to 17 minutes of backup at full load. The batteries are easily accessible and maintained through front access slide-out trays. DC Expert® Plus internal battery management system significantly enhances battery life.

POWERWARE 9330 MODEL SELECTION GUIDE

Powerware 9330-20 Performance Characteristics		Model 10 10 kVA/7 kW					Model 15 15kVA/10.5 kW					Model 20 20 kVA/14 kW				
Input Voltage	Volts	208	220	480	480	600	208	220	480	480	600	208	220	480	480	600
Output Voltage	Volts	208	220	208	480	208	208	220	208	480	208	208	220	208	480	208
Input/Output Frequency	Hz	50/60	50/60	60	60	60	50/60	50/60	60	60	60	50/60	50/60	60	60	60
Input Voltage Range																
Minimum	Volts	177	187	408	408	510	177	187	408	408	510	177	187	408	408	510
Maximum	Volts	228	242	528	528	660	228	242	528	528	660	228	242	528	528	660
Rectifier Input	Amps	28	27	12.6	12.6	10.1	40	38	18.1	18.1	14.4	52	49	23.5	23.5	18.8
Bypass Input																
Nominal Amps	Amps	27.8	26.3	12.5	12.5	10	41.6	39.4	18.8	18.8	15	55.5	52.5	25.1	25.1	20
AC Output																
Nominal Amps	Amps	27.8	26.3	27.8	11.4	27.8	41.6	39.4	41.6	17	41.6	55.5	52.5	55.5	22.8	55.5
10 Minutes	Amps	34.8	32.8	34.8	14.3	34.8	52	49.7	52	21.3	52	69.4	65.6	69.4	28.5	69.4
Battery																
Nominal Voltage	Volts	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288
Max Charge Voltage @ 25ºC	Volts	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
Charge Current	Amps	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
Nominal Discharge Current Amps		26	26	26	26	26	39	39	39	39	39	52	52	52	52	52
Total Cell Count		144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
System Efficiency ❶																
@ 100% Load	%	92.9	92.0	89.2	85.9	89.2	92.7	91.8	89	85.7	89	92.4	91.5	88.7	85.4	88.7
@ 75% Load	%	91.9	91.4	88.2	85	88.2	93	91.2	89.3	86	89.3	92.7	91.8	89	85.7	89
@ 50% Load	%	90.6	90.4	87	83.8	87	92	91.6	88.3	85.1	88.3	92.9	92.0	89.2	85.9	89.2
Maximum Heat Dissipation																
BTU/Hr. (x1000)		1.8	2.1	2.9	3.9	2.9	2.8	3.2	4.4	6.0	4.4	3.9	4.2	6.1	8.2	6.1
kcal/Hr.		460	.530	730	989	730	711	.817	1117	1507	1117	990	1000	1533	2054	1533
Inverter Efficiency (Full Load)	%	93	93	93	90	93	94	93	94	92	94	94	93	94	92	94
Physical Attributes (max.)																
Width	in/cm	22/56	22/56	39/99	39/99	39/99	22/56	22/56	39/99	39/99	39/99	22/56	22/56	39/99	39/99	39/99
Height	in/cm	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114
Depth	in/cm	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79
Weight installed ❷	lbs/kg	958/435	958/435	1428/648	1688/766	1428/648	958/435	958/435	1428/648	1688/766	1428/648	958/435	958/435	1428/648	1688/766	1428/648

❶ Efficiency shown takes into account the output and input transformer for input or output voltages other then 208V.
❷ System weights include optional input filter and power distribution panel.
* Specifications subject to change without notice.

POWERWARE 9330 MODEL SELECTION GUIDE

Powerware 9330-40 Performance Characteristics		Model 25 25 kVA/17.5 kW					Model 30 30 kVA/21 kW					Model 35 35 kVA/24.5 kW					Model 40 40 kVA/28 kW				
Input Voltage	Volts	208	220	480	480	600	208	220	480	480	600	208	220	480	480	600	208	220	480	480	600
Output Voltage	Volts	208	220	208	480	208	208	220	208	480	208	208	220	208	480	208	208	220	208	480	208
Input/Output Frequency	Hz	50/60	50/60	60	60	60	50/60	50/60	60	60	60	50/60	50/60	60	60	60	50/60	50/60	60	60	60
Input Voltage Range																					
Minimum	Volts	177	187	408	408	510	177	187	408	408	510	177	187	408	408	510	177	187	408	408	510
Maximum	Volts	228	242	528	528	660	228	242	528	528	660	228	242	528	528	660	228	242	528	528	660
Rectifier Input	Amps	70	66.5	31.6	31.6	25.3	80	77	36.1	36.1	28.9	92	87.5	41.5	41.5	33.2	100	98	45.1	45.1	36.1
Bypass Input																					
Nominal Amps	Amps	69.4	65.6	31.3	31.3	25.1	83	78.7	37.5	37.5	30	97	92	43.8	43.8	35	111	105	50.1	50.1	40.1
AC Output																					
Nominal Amps	Amps	69.4	65.6	69.4	28.6	69.4	83	78.7	83	34.2	83	97	92	97	39.9	97	111	105	111	45.7	111
10 Minute Amps	Amps	86.8	82	86.8	35.7	86.8	103.8	98.4	103.8	42.7	103.8	121.3	115	121.3	49.9	121.3	138.8	131	138.8	57.1	138.8
Battery																					
Nominal Voltage	Volts	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288	288
Max Charge Voltage @ 25° C	Volts	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340	340
Charge Current	Amps	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
Nominal Discharge Current	Amps	64	64	64	64	64	78	78	78	78	78	91	91	91	91	91	100	100	100	100	100
Total cell count		144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144	144
System Efficiency ❶		91.4	90.3	88.2	85.1	88.2	92.2	90.3	89	85.9	89	91.7	91.4	88.5	85.4	88.5	91.5	90.5	88.3	85.2	88.3
@ 75% load	%	91	89.7	87.8	84.7	87.8	91.4	90.0	88.2	85.1	88.2	91.4	90.1	88.2	85.1	88.2	91.8	90.3	88.6	85.5	88.6
@ 50% load	%	90	89.7	86.9	83.8	86.9	90.4	88.0	87.2	84.2	87.2	90.9	88.5	87.7	84.6	87.7	91.1	89.7	87.9	84.8	87.9
Maximum Heat Dissipation																					
BTU/Hr. (x1000)		5.6	5.2	8.0	10.4	8.0	6.1	6.3	8.9	11.8	8.9	7.6	7.3	10.9	14.3	10.9	8.9	8.3	12.7	16.6	12.7
kcal/Hr.		1416	1300	2013	2632	2013	1528	1600	2238	2974	2238	1907	1800	2740	3603	2740	2236	2100	3191	4180	3191
Inverter Efficiency (Full Load)	%	92.5	93	92.5	89	92.5	93	93	93	90	93	93	93	93	90	93	93	93	93	90	93
Physical Attributes (max)																					
Width	in/cm	39/99	39/99	61/155	61/155	61/155	39/99	39/99	61/155	61/155	61/155	39/99	39/99	61/155	61/155	61/155	39/99	39/99	61/155	61/155	61/155
Height	in/cm	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/115	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114	45/114
Depth	in/cm	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79	31/79
Weight installed ❷	lbs/kg	1847/838	1847/838	2812/1276	3497/1586	2812/1276	1847/838	1847/838	2812/1276	3497/1586	2812/1276	847/838	1847/838	2812/1276	3497/1586	2812/1276	1847/838	1847/838	2812/1276	3497/1586	2812/1276

❶ Efficiency shown takes into account the output and input transformer for input or output voltages other then 208V.
❷ System weights include optional input filter and power distribution panel.
* Specifications subject to change without notice.

UNITED STATES
8609 Six Forks Road
Raleigh, NC 27615 U.S.A.
Toll Free: 1.800.356.5794
or 919.872.3020

www.powerware.com

CANADA
Ontario: 416.798.0112

LATIN AMERICA
Argentina: 54.11.4343.6323
Brazil: 55.11.3616.8500
México: 52.55.5488.5252

EUROPE/MIDDLE EAST/AFRICA
Denmark: 45.3686.7910
Finland: 358.94.52.661
France: 33.1.6012.7400
Germany: 49.7841.666.0
Italy: 39.02.66.04.05.40
Norway: 47.23.03.65.50
Sweden: 46.8.598.940.00
United Kingdom: 44.1753.608.700

ASIA PACIFIC
Australia/NZ: 61.2.9878.5000
China: 86.21.6361.5599
HK/Korea/Taiwan: 852.2745.6682
India: 91.11.2649.9414 to 18
Singapore/SEA: 65.6829.8888

Powerware, DC Expert, and Powerware Hot Sync are trade names, trademarks, and/or service marks of Eaton Power Quality Corporation or its subsidiaries and affiliates.

© 2005 Eaton Corporation
All Rights Reserved
Printed in USA
PLS43FXA
June 2005

EATON | Powerware